

007. DEFINITIONS.

01. **Affected Ground Water Area.** The portion of an aquifer including and surrounding an mineral extraction area where a naturally occurring constituent is or is predicted to be present at a concentration above the natural background level as a result of the mineral extraction. (See Subsection 400.06.) ()

042. **Agricultural Chemical.** Any pesticide, nutrient or fertilizer used for the benefit of agricultural production or pest management. (3-20-97)

023. **Aquifer.** A geological unit of permeable saturated material capable of yielding economically significant quantities of water to wells and springs. (3-20-97)

034. **Beneficial Uses.** Various uses of ground water in Idaho including, but not limited to, domestic water supplies, industrial water supplies, agricultural water supplies, aquacultural water supplies, and mining. A beneficial use is defined as actual current or projected future uses of ground water. (3-20-97)

045. **Best Available Method.** Any system, process, or method which is available to the public for commercial or private use to minimize the impact of point or nonpoint sources of contamination on ground water quality. (3-20-97)

056. **Best Management Practice.** A practice or combination of practices determined to be the most effective and practical means of preventing or reducing contamination to ground water and interconnected surface water from nonpoint and point sources to achieve water quality goals and protect the beneficial uses of the water. (3-20-97)

067. **Best Practical Method.** Any system, process, or method that is established and in routine use which could be used to minimize the impact of point or nonpoint sources of contamination on ground water quality. (3-20-97)

078. **Board.** The Idaho Board of Environmental Quality. (3-20-97)

089. **Cleanup.** The removal, treatment or isolation of a contaminant from ground water through the directed efforts of humans or the removal or treatment of a contaminant in ground water through management practice or the construction of barriers, trenches and other similar facilities for prevention of contamination, as well as the use of natural processes such as ground water recharge, natural decay and chemical or biological decomposition. (3-20-97)

0910. **Constituent.** Any chemical, ion, radionuclide, synthetic organic compound, microorganism, waste or other substance occurring in ground water. (3-20-97)

101. **Contaminant.** Any chemical, ion, radionuclide, synthetic organic compound, microorganism, waste or other substance which does not occur naturally in ground water or which naturally occurs at a lower concentration. (3-20-97)

142. **Contamination.** The direct or indirect introduction into ground water of any contaminant caused in whole or in part by human activities. (3-20-97)

123. **Crop Root Zone.** The zone that extends from the surface of the soil to the depth of the deepest

crop root and is specific to a species of plant, group of plants, or crop. (3-20-97)

134. Degradation. The lowering of ground water quality as measured in a statistically significant and reproducible manner. (3-20-97)

145. Department. The Department of Environmental Quality. (3-20-97)

156. Ground Water. Any water of the state which occurs beneath the surface of the earth in a saturated geological formation of rock or soil. (3-20-97)

167. Ground Water Quality Standard. Values, either numeric or narrative, assigned to any constituent for the purpose of establishing minimum levels of protection. (3-20-97)

178. Highly Vulnerable Ground Water. Ground water characterized by a relatively high potential for contaminants to enter and/or be transported within the flow system. Determinations of ground water vulnerability will include consideration of land use practices and aquifer characteristics. (3-20-97)

189. Irreplaceable Source. A ground water source serving a beneficial use(s) where the reliable delivery of comparable quality and quantity of water from an alternative source in the region would be economically infeasible or precluded by institutional constraints. (3-20-97)

20. Mineral Extraction. Recovery of a mineral from mineral-bearing deposits, which may include extraction, excavation, overburden placement, disposal of waste rock, or reclamation as provided in Subsection 400.06. ()

21. Mineral Extraction Area. The area determined by the Department that is necessary for mineral extraction. It may include excavation, overburden placement, disposal of waste rock, or reclamation at the discretion of the Department as provided in Subsection 400.06. ()

192. Natural Background Level. The level of any constituent in the ground water within a specified area as determined by representative measurements of the ground water quality unaffected by human activities. (3-20-97)

23. Naturally Occurring Constituent. An element, chemical, ion, radionuclide, microorganism or other substance that occurs naturally in the ground water or in the geological formations of rock or soil surrounding the ground water in the proximity of the affected ground water area. ()

24. Permanent Cessation. When no substantial mineral extraction activity has occurred for the prior three (3) years, mineral extraction may be presumed to have permanently ceased unless the operator has received a deferral from the Department as provided in Subsection 400.06.b.ii. ()

205. Person. Any individual, association, partnership, firm, joint stock company, joint venture, trust, estate, political subdivision, public or private corporation, state or federal governmental department, agency or instrumentality, or any legal entity which is recognized by law as the subject of rights and duties. (3-20-97)

26. Point of Compliance. The vertical surface where the Department determines compliance with ground water quality standards and which shall be set on a site-specific basis. ()

217. Practical Quantitation Level. The lowest concentration of a constituent that can be reliably quantified among laboratories within specified limits of precision and accuracy during routine laboratory operating conditions. Specified limits of precision and accuracy are the criteria listed in the calibration specifications or quality control specifications of an analytical method. (3-20-97)

228. Projected Future Beneficial Uses. Various uses of ground water, such as drinking water, aquaculture, industrial, mining or agriculture, that are practical and achievable in the future based on hydrogeologic

conditions, water quality, future land use activities and social/economic considerations. (3-20-97)

239. Recharge Area. An area in which water infiltrates into the soil or geological formation from, including but not limited to precipitation, irrigation practices and seepage from creeks, streams, and lakes, and percolates to one (1) or more aquifers. (3-20-97)

2430. Remediation. Any action taken (1) to control the source of contamination, (2) to reduce the level of contamination, (3) to mitigate the effects of contaminants, and/or (4) to minimize contaminant movement. Remediation includes providing alternate drinking water sources when needed. (3-20-97)

2531. Site Background Level. The ground water quality at the hydraulically upgradient site boundary. (3-20-97)

(BREAK IN CONTINUITY OF SECTIONS)

350. PROCEDURES FOR CATEGORIZING OR RECATEGORIZING AN AQUIFER.

The following process shall be used for categorizing or recategorizing an aquifer. (3-20-97)

01. Criteria for Aquifer Categories. The following criteria shall be considered when a petition to categorize or recategorize aquifers or portions of aquifers is submitted to the Board: (3-20-97)

a. For Sensitive Resource aquifers: (3-20-97)

i. The ground water in an aquifer or portion of an aquifer is of a better quality than the ground water quality standards in Section 200 and maintenance of this quality is needed to protect an identified beneficial use(s); (3-20-97)

ii. The ground water in an aquifer or portion of an aquifer is considered highly vulnerable; (3-20-97)

iii. The ground water in an aquifer or portion of an aquifer represents an irreplaceable source for the identified beneficial use(s); (3-20-97)

iv. The ground water quality in an aquifer or portion of an aquifer has been degraded and there is a need for additional protection measures to maintain or improve the water quality or prevent impairment of a beneficial use; (3-20-97)

v. The ground water within an aquifer or portion of an aquifer is shown to be hydrologically interconnected with surface water and additional protection is needed to maintain the quality of either surface or ground water. Hydrologic interconnections can include either natural or induced ground water recharge or discharge areas; or (7-1-98)

vi. The ground water within an aquifer or portion of an aquifer demonstrates other criteria which justify the need for additional protection. (3-20-97)

b. For General Resource aquifers: (3-20-97)

i. An activity with the potential to degrade ground water quality is initiated over an aquifer or portion of an aquifer which presently has no such activities; (3-20-97)

ii. The ground water in an aquifer or portion of an aquifer is currently being used for drinking water or another beneficial use which requires similar protection; or (3-20-97)

iii. The ground water in an aquifer or portion of an aquifer has a projected future beneficial use of drinking water or another beneficial use which requires similar protection. (3-20-97)

c. For other resource aquifers: (3-20-97)

i. The ground water quality within an aquifer or portion of an aquifer does not meet one or more of the ground water quality standards in Section 200; and allowing the ground water quality to remain at this level does not impair existing or projected future beneficial uses within the aquifer or portion of an aquifer; (3-20-97)

ii. The projected ground water quality within an aquifer or portion of an aquifer will not meet one or more of the ground water quality standards in Section 200 as a result of activities over or within the aquifer or portion of an aquifer; and allowing the proposed degradation will not impair existing or projected future beneficial uses; (3-20-97)

iii. Human caused conditions or sources of contamination have resulted in ground water quality standards in Section 200 being exceeded, and the contamination cannot be remedied for economical or technical reasons, or remediation would cause more environmental damage to correct than to leave in place; ~~or (3-20-97)~~ ()

iv. In areas where mineral extraction will occur or is occurring and ground water quality standards will be or are exceeded despite the application of all relevant best management practices, best available methods or best practical methods, as appropriate for the aquifer category, or where mineral extraction has occurred and the Department has determined pursuant to Subsection 400.06 that naturally occurring constituents in ground water are not contaminants. The categorization decision based upon these circumstances shall take into account the affect on human health and the environment, including existing or projected beneficial uses of the aquifer; or ()

~~iv.~~ The ground water within an aquifer or portion of an aquifer demonstrates other criteria which justify the need for categorization as an Other Resource. (3-20-97)

02. Petition Process. The Department or any other person may petition the Board to initiate rulemaking to categorize or recategorize an aquifer or portion of an aquifer pursuant to IDAPA 58.01.23, "Rules of Administrative Procedure Before the Board of Environmental Quality." In addition to the information required in a rulemaking Petition pursuant to IDAPA 58.01.23, the following information shall be submitted in writing by the Petitioner for the identified aquifer or portion of an aquifer: (3-15-02)

a. Current category, if applicable; (3-20-97)

b. Proposed category and an explanation of how one or more of the criteria in Subsection 350.01 are met; (3-20-97)

c. An explanation of why the categorization or recategorization is being proposed; (3-20-97)

d. Location, description and areal extent; (3-20-97)

e. General location and description of existing and projected future ground water beneficial uses; (3-20-97)

f. Documentation of the existing ground water quality; (3-20-97)

g. Documentation of aquifer characteristics, where available, including, but not limited to: (3-20-97)

i. Depth to ground water; (3-20-97)

ii. Thickness of the water bearing section; (3-20-97)

iii. Direction and rate of ground water flow; (3-20-97)

iv. Known recharge and discharge areas; and (3-20-97)

v. Geology of the area; (3-20-97)

h. Identification of any proposed standards, for specified constituents, which would be stricter or less strict than the ground water quality standards in Section 200, or any standards to be applied in addition to those in Section 200; and a rationale for the proposed standards. (3-20-97)

03. Preliminary Department Review. Prior to submission of a petition to the Board to categorize or recategorize an aquifer, any person may seek a preliminary review of the petition from the Department. The Department shall respond to the petitioner with comments within forty-five (45) days. (3-20-97)

351. -- 399. (RESERVED).

400. GROUND WATER CONTAMINATION.

01. Releases Degrading Ground Water Quality. No person shall cause or allow the release, spilling, leaking, emission, discharge, escape, leaching, or disposal of a contaminant into the environment in a manner that:
(3-20-97)

a. Causes a ground water quality standard to be exceeded; (3-20-97)

b. Injures a beneficial use of ground water; or (3-20-97)

c. Is not in accordance with a permit, consent order or applicable best management practice, best available method or best practical method. (3-20-97)

02. Prevention Measures. (3-20-97)

a. When a numerical standard is not exceeded, but degradation of ground water quality is detected and deemed significant by the Department, the Department shall take one (1) or more of the following actions:(3-20-97)

i. Require a modification of regulated activities to prevent continued degradation; (3-20-97)

ii. Coordinate with the appropriate agencies and responsible persons to develop and implement prevention measures for activities not regulated by the Department; (3-20-97)

iii. Allow limited degradation of ground water quality for the constituents identified in Subsection 200.01.a. if it can be demonstrated that: (3-30-07)

(1) Best management practices, best available methods or best practical methods, as appropriate for the aquifer category, are being applied; and (3-20-97)

(2) The degradation is justifiable based on necessary and widespread social and economic considerations; or(3-20-97)

iv. Allow degradation of ground water quality up to the standards in Subsection 200.01.b., if it can be demonstrated that: (3-20-97)

(1) Best management practices are being applied; and (3-20-97)

(2) The degradation will not adversely impact a beneficial use. (3-20-97)

b. The following criteria shall be considered when determining the significance of degradation:
(3-20-97)

- i. Site specific hydrogeologic conditions; (3-20-97)
- ii. Water quality, including seasonal variations; (3-20-97)
- iii. Existing and projected future beneficial uses; (3-20-97)
- iv. Related public health issues; and (3-20-97)
- v. Whether the degradation involves a primary or secondary constituent in Section 200. (3-20-97)

03. Contamination Exceeding a Ground Water Quality Standard. The discovery of any contamination exceeding a ground water standard that poses a threat to existing or projected future beneficial uses of ground water shall require appropriate actions, as determined by the Department, to prevent further contamination. These actions may consist of investigation and evaluation, or enforcement actions if necessary to stop further contamination or clean up existing contamination, as required under the Environmental Protection and Health Act, Section 39-108, Idaho Code. (3-20-97)

04. Agricultural Chemicals. Agricultural chemicals found in intermittently saturated soils within the crop root zone will not be considered ground water contaminants as long as the chemicals remain within the crop root zone, and have been applied in a manner consistent with all appropriate regulatory requirements. (3-20-97)

05. Site-Specific Ground Water Quality Levels or Points of Compliance. The Department may allow site-specific ground water quality levels, for any aquifer category, that vary from a standard(s) in Section 200 or Section 300, or may allow site-specific points of compliance, based on consideration of effects to human health and the environment, for: (3-20-97)()

- a. Remediation conducted under the Department's oversight; (3-20-97)
- b. Permits issued by the Department; (3-20-97)
- c. Situations where the site background level varies from the ground water quality standard; ~~or~~ (3-20-97)()

d. Affected ground water area when the provisions of Subsection 400.06 are no longer applicable;()

e. Dissolved concentrations of secondary constituents listed in Section 200. The Department may allow the use of dissolved concentrations for secondary constituents if the requesting person demonstrates that doing so will not adversely affect human health and the environment; or ()

- ~~d~~f. Other situations authorized by the Department in writing. (3-20-97)

06. Mineral Extraction. Q

a. Mineral Extraction. Naturally occurring constituents found in ground water within ~~a specified area surrounding an active mineral extraction~~ the affected ground water area, as determined by the Department, will not be considered contaminants as long as all applicable best management practices, best available methods or best practical methods appropriate for the aquifer category, as approved by the Department, are applied. (7-1-98)()

i. The mineral extraction area, to which the affected ground water area applies, shall not include excavation, overburden placement, disposal of waste rock, or reclamation unless the Department determines that such activities cannot be conducted without causing an increase in naturally occurring constituents above natural background levels notwithstanding the application of all relevant best management practices, best available methods or best practical methods, as appropriate for the aquifer category. ()

ii. The affected ground water area shall be limited to the mineral extraction area unless the mine operator can demonstrate actual current or projected future beneficial uses of ground water or interconnected surface

water will not be injured as a result of the increase in naturally occurring constituents. ()

iii. The activities included within the mineral extraction area and the extent of the affected ground water area will be established by the Department based on information developed by the mine operator using methods approved by the Department. The Department will also consider technical evaluations provided by other persons if those evaluations are developed using methods approved by the Department and are provided in a timely manner. ()

b. Permanent Cessation. ()

i. The provision set out in Subsection 400.06.a. will apply for not less than four (4) years nor more than eight (8) years following permanent cessation of mineral extraction that is within the affected ground water area or when a request is made for the release of the reclamation bond for the mineral extraction, whichever comes first. ()

ii. If an operator does not plan to conduct mineral extraction for three (3) or more years but intends thereafter to continue mineral extraction and desires to defer final reclamation, the operator shall submit a written notice of intent and request for deferral to the Department. If the Department determines that the operator plans to continue mineral extraction within a reasonable period of time not to exceed five (5) years, the Department shall notify the operator of that determination in writing. If the Department determines that mineral extraction will not be continued within a reasonable period of time not to exceed five (5) years, the Department may proceed as though mineral extraction has permanently ceased, but shall notify the operator, in writing, of that determination at least thirty (30) days before taking any formal administrative action concerning the mineral extraction operation. Any determination regarding deferral would be made in coordination with the Idaho Department of Lands, or applicable federal agencies, when appropriate. Mining operations that have suspended mineral extraction activities as of July 1, 2009 shall have two (2) years to submit a request for deferral from the Department. ()

c. Applicability. The provisions set out in Subsection 400.06.a. apply to new mineral extraction activities commencing after July 1, 2009. All consent orders, compliance schedules, and other agreements adopted or issued by the Department prior to July 1, 2009 pertaining to ground water protection at mine sites shall remain in full force and effect. When the provisions of Subsection 400.06.a. are no longer applicable, ground water quality standards must be met within the affected ground water area unless the aquifer is recategorized, or a site-specific level or point of compliance is set under Subsection 400.05. ()